Multisensory cortical interactions between speech and script in fluent and dyslexic readers

Stellingen behorend bij het proefschrift

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1. Fluent reading is characterized by a strong and automatic functional coupling between orthography and phonology in the literate adult brain.

2. Neural activation differences in letter-speech sound integration are tightly linked to individual variations across a broad spectrum of reading skills ranging from expert to dyslexic readers.

3. Letter-speech sound integration is an emergent property of learning to read that develops inadequately in dyslexic readers.

4. Inadequate multisensory cortical integration of letters and speech sounds provide an explanation about how a deficit in the auditory-phonological domain translates into a problem in the fast recognition of visual words.

5. Reduced letter-speech sound integration in dyslexia relates to current reading ability, while the reduced activation to speech sounds in dyslexia is a fundamental weakness that cannot be reduced to differences in current reading level.

6. A coherent understanding of the neurobiology of dyslexia is likely to require the integration of both, distal (dyslexia-specific) *and* proximate (reading skill-related) empirical explanations.

7. The lifelong journey of literacy starts with decoding of a single letter.

8. The most exciting phrase to hear in science, the one that heralds the most discoveries, is not "Eureka!" (I found it!) but "That's funny..." ~ Isaac Asimov (1920-1992).

9. I have often wondered why scientists who perceive the world through multiple senses wind up studying perception through only one.

Maastricht, 9 september 2009